

THE SPREAD OF VARIATIONS

39

tion—we should have no idea of the beginning or end of the process. So the evolution of species may be progressing by predetermined stages, which need more time for their detection than may be commanded by human observation. But amongst the considerations that may be opposed to this belief there stand the wastefulness of life—the creation of millions of living organisms which are born only to be destroyed in immaturity: and the fact that evolution may be retrogressive—that species may descend the scale of life as the tapeworm and the barnacle have undoubtedly degenerated. These considerations are hardly to be reconciled with the idea of a preordained scheme of evolutionary development, unless we concede that it may be wholly out of accord with our higher ethical ideas.

We are, however, aware of two forces, very different in themselves, which may have contributed to the spread of variations—the influences of environment, and the imitative impulse. There appears to be an analogy between the evolution of species and the development of civilization: in both cases novelties arise in individuals and spread to masses. The novelties of civilization—new mechanical inventions or artistic ideas—for instance—disseminate themselves by their suitability to peculiarities of climate or locality (which occasion a desire for them), or by the action of the

propensity to imitate, which is one of the strongest of human instincts. If we assume that a chance variation may be in accord with influences of environment—~~which~~ we may not comprehend but should not on this account rule out of existence—these influences may very materially assist its possessors in outnumbering their fellows: and if, in some cases, the occurrence of a variation is actually stimulated by these influences, their